

<u>TestAmerica</u>

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories Inc. TestAmerica Seattle 5755 8th Street East Tacoma, WA 98424 Tel: (253)922-2310

TestAmerica Job ID: 580-18082-1 Client Project/Site: Rainier Commons

For: Clean Harbors Environmental Services Inc 19320 Des Moines Memorial Dr Bldg D, Suite 400 Seatac, Washington 98148

Attn: Shawn Estrada

Pamela R. Johnson

Authorized for release by: 3/14/2010 9:42 PM

Pam Johnson
Project Manager I
pamr.johnson@testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

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03/14/2010

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Job Narrative 580-18082-1

Comments

No additional comments.

Receip

All samples were received in good condition within temperature requirements.

GC Semi VOA - Method 8082

Sample contained both aroclors PCB-1254 and PCB-1260. Due to overlap, shared peaks were deleted to avoid reporting high bias results

No other analytical or quality issues were noted.

General Chemistry

No analytical or quality issues were noted.

Organic Prep

No analytical or quality issues were noted.























Detection Summary

Client: Clean Harbors Environmental Services Inc

Project/Site: Rainier Commons

Client Sample ID: RC030510

TestAmerica Job ID: 580-18082-1

Lab Sample ID: 580-18082-1

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350535300





















Analyte Result Qualifier RL MDL Unit Dil Fac D Method Prep Type 1 ₩ 8082 PCB-1254 0.49 0.012 mg/Kg Total/NA PCB-1260 0.36 0.012 mg/Kg 1 🌣 8082 Total/NA RL RL Unit Analyte Result Qualifier Dil Fac D Method Prep Type Percent Solids 84 0.10 % Moisture Total/NA Percent Moisture 16 0.10 % Moisture Total/NA

Analytical Data

Client: Clean Harbors Environmental Services Inc

Project/Site: Rainier Commons

Date Collected: 03/05/10 00:00

Date Received: 03/05/10 11:25

Client Sample ID: RC030510

TestAmerica Job ID: 580-18082-1

Lab Sample ID: 580-18082-1

Matrix: Solid Percent Solids: 84.2

Sillian sales	

Method: 8082 - Polychlorina	ted Biphenyls (PCI	3s) by Gas (Chromatograph	у					
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.012		mg/Kg	₩	03/08/10 10:24	03/08/10 17:10	1
PCB-1221	ND		0.012		mg/Kg	₩	03/08/10 10:24	03/08/10 17:10	1
PCB-1232	ND		0.012		mg/Kg	₿	03/08/10 10:24	03/08/10 17:10	1
PCB-1242	ND		0.012		mg/Kg	₩.	03/08/10 10:24	03/08/10 17:10	. 1
PCB-1248	ND		0.012		mg/Kg	₿	03/08/10 10:24	03/08/10 17:10	1
PCB-1254	0.49		0.012		mg/Kg	₿	03/08/10 10:24	03/08/10 17:10	1
PCB-1260	0.36		0,012		mg/Kg	₩	03/08/10 10:24	03/08/10 17:10	1
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	96		45 - 155				03/08/10 10:24	03/08/10 17:10	1
DCB Decachlorobiphenyl	101	•	60 - 125				03/08/10 10:24	03/08/10 17:10	. 1
General Chemistry		•							
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	84		0.10		- %	_		03/08/10 17:27	1
Parcent Maisture	16		0.10		%			03/08/10 17:27	4

Quality Control Data

Client: Clean Harbors Environmental Services Inc

Project/Site: Rainier Commons

Lab Sample ID: MB 580-59437/1-A

Client Sample ID: MB 580-59437/1-A

TestAmerica Job ID: 580-18082-1

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid Analysis Batch: 59434						Prep Type: T Prep Batch	
MB	МВ						
Analyte Result	Qualifier	RL	MDL	Unit C	Prepared	Analyzed	Dil Fac
PCB-1016 ND		0.010		mg/Kg	03/08/10 10:24	03/08/10 15:54	1
PCB-1221 ND		0.010		mg/Kg	03/08/10 10:24	03/08/10 15:54	1
PCB-1232 ND		0.010		mg/Kg	03/08/10 10:24	03/08/10 15:54	1
PCB-1242 ND		0.010		mg/Kg	03/08/10 10:24	03/08/10 15:54	1
PCB-1248 ND		0.010		mg/Kg	03/08/10 10:24	03/08/10 15:54	1
PCB-1254 ND		0.010		mg/Kg	03/08/10 10:24	03/08/10 15:54	1
PCB-1260 ND		0.010		mg/Kg	03/08/10 10:24	03/08/10 15:54	1
ME	MB						
Surrogate % Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene 119		45 - 155			03/08/10 10:24	03/08/10 15:54	1
DCB Decachlorobiphenyl 110	ı	60 - 125			03/08/10 10:24	03/08/10 15:54	1

Lab Sample ID: LCS 580-59437/2-A

Matrix: Solid

Analysis Batch: 59434

Client Sample ID: LCS 580-59437/2-A

Prep Type: Total/NA Prep Batch: 59437

	Spike	LCS	LCS			% Rec.	
Analyte	Added	Result	Qualifier	Unit	% Rec.	Limits	
PCB-1016	0.100	0.0842		mg/Kg	84	40 - 140	
PCB-1260	0.100	0.103		mg/Kg	103	60 - 130	

	LCS	LCS	
Surrogate	% Recovery	Qualifier	Limits
Tetrachloro-m-xylene	112		45 - 155
DCB Decachlorobiphenyl	100		60 - 125

Lab Sample ID: 580-18069-E-5-C MS

Matrix: Solid

Client Sample ID: 580-18069-E-5-C MS

Prep Type: Total/NA

i	Analysis Batch: 59434								Prep Ba	tcn: 59437
		Sample	Sample	Spike	MS	MS			% Rec.	
	Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	% Rec.	Limits	
	PCB-1016	ND		0.103	0.0912	-	mg/Kg	88	40 - 140	
distribution of	PCB-1260	ND		0.103	0.109		mg/Kg	106	60 - 130	
		MS	MS.							
	Surrogate	% Recovery	Qualifier	Limits						
	Tetrachloro-m-xylene	113		45 - 155						
	DCB Decachlorobiphenyl	101		60 - 125						

Lab Sample ID: 580-18069-E-5-D MSD

Matrix: Solid

Analysis Batch: 59434

Client Sample ID; 580-18069-E-5-D MSD

Prep Type: Total/NA

Prep Batch: 59437

	Sample	Sample	Spike	MSD	MSD			% Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit .	% Rec.	Limits	RPD	Limit
PCB-1016	ND		0.101	0.0920		mg/Kg	91	40 - 140	1	20
PCB-1260	ND		0.101	0.109		mg/Kg	108	60 - 130	0	20
	MCD	MCD								

MISD	MOD	
% Recovery	Qualifier	Limits
116		45 - 155
104		60 - 125
	% Recovery	

Quality Control Data

19

%

Client: Clean Harbors Environmental Services Inc Project/Site: Rainier Commons

TestAmerica Job ID: 580-18082-1

Client Sample ID: 580-18106-C-1 DU

2010/00/2012/00/20
20020000
10091, 5038
100000 10000
2000 THE
35.00
100/2007 (100/057)











RPD

Limit

20

20

3

11











Method: Moisture - Percent Moisture

Lab Sample ID: 580-18106-C-1 DU

Percent Moisture

Matrix: Solid Prep Type: Total/NA Analysis Batch: 59487 Sample Sample DU DU Result Qualifier Result Qualifier Unit % Percent Solids 78 81

22

Lab Chronicle

03/08/10 17:27 BAB

Client: Clean Harbors Environmental Services Inc

Project/Site: Rainier Commons

TestAmerica Job ID: 580-18082-1

TestAmerica Seattle

Lab Sample ID: 580-18082-1

Matrix: Solid Percent Solids: 84.2

Client Sampl	e ID:	RC030510
Date Collected:	03/05	/10 00:00

Date Received: 03/05/10 11:25

Total/NA

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	Or Analyzed	Analyst	Lab
Total/NA	Prep	3550B		1	59437	03/08/10 10:24	KKJ	TestAmerica Seattle
Total/NA	Analysis	8082		1	59434	03/08/10 17:10	MAM	TestAmerica Seattle

Certification Summary

Client: Clean Harbors Environmental Services Inc Project/Site: Rainier Commons

TestAmerica Job ID: 580-18082-1

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Laboratory	Program	Authority	EPA Region	Certification ID	Expiration Date
TestAmerica Seattle	DoD ELAP	L-A-B	0	L2236	01/19/13
TestAmerica Seattle	ISO/IEC 17025	L-A-B	0	L2236	01/19/13
TestAmerica Seattle	NELAC Primary AB	Oregon	10	WA100007	11/06/09
TestAmerica Seattle	NELAC Secondary AB	California	9	1115CA	01/31/10
TestAmerica Seattle	State Program	Washington	10	C1226	02/17/11
TestAmerica Seattle	USDA			P330-08-00099	05/22/11

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

Method Summary

Client: Clean Harbors Environmental Services Inc Project/Site: Rainier Commons

TestAmerica Job ID: 580-18082-1

Method	Method Description	Protocol	Laboratory						
8082	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL TAC						
Moisture	Percent Moisture	EPA	TAL TAC						

Protocol References:

EPA = US Environmental Protection Agency
SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL TAC = TestAmerica Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

Sample Summary

Solid

Client: Clean Harbors Environmental Services Inc Project/Site: Rainier Commons

Lab Sample ID 580-18082-1

Client Sample ID

RC030510

TestAmerica Job ID: 580-18082-1

03/05/10 00:00 03/05/10 11:25

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CHAIN OF CUSTODY RECORD

☐ 1 Hill Avenue, Braintree, MA 02184

Tel. (781) 849-1800

RTE. 2, Box 170, Waynoka, OK 73860

Tel. (580) 697-3500

☐ 12400 247th Avenue SE, Sawyer, ND 58781

Client: Clan Report To: Shour	tst	rada	Addres	ss:											Phone #:.		
Sampling Infor			Sampling Information	1		Analysis									CHES Sample #		
Sample I.D.	Date	Time	Station Location	Sample Matrix	8087 DC3											# of con.	
2C030S 10	3/5			Solid	X												
			٠							•							
			· · · · · · · · · · · · · · · · · · ·														· · · · · · · · · · · · · · · · · · ·
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		<u>,</u>															
			· · · · · · · · · · · · · · · · · · ·														
Relinquished by Sampler:	Shew	~ (Cs4	trada	VOA Vial	VOA Vial								COMMENTS: (Fax Number, cautions, special instructions)				
Relinquished by Sampler: Shewn Estra Ja Date: 315110 Time: 1125			1125	Glass Bottle													
Received by: JSJ 16 Time: 1125			Plastic Bottle									SIL					
Date: Time: /// Relinquished by Sampler:			Preservation														
Date:Time:			Volume														
Received by: DOT Shipping Not				Name:													

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Login Sample Receipt Check List

Client: Clean Harbors Environmental Services Inc

Job Number: 580-18082-1

Login Number: 18082 Creator: Presley, Kim List Number: 1 List Source: TestAmerica Tacoma

Question	T / F/ NA	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	False	Ambient
Cooler Temperature is acceptable.	True	received within 4 hours of sampling
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	N/A	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	ϵ :
Is the Field Sampler's name present on COC?	False	
Sample Preservation Verified	N/A	

TestAmerica Seattle

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